

WATER MANAGEMENT

OVERVIEW

Our Waihi mining operation straddles the Ohinemuri River and neighbours several tributaries, the largest being the Ruahorehore and Mangatoetoe Streams. If Project Quattro is approved, we will be required to comply with consent conditions for water management granted by the Waikato Regional Council. Under the conditions of those consents, OceanaGold Waihi expects a requirement to submit a Water Management Plan that sets out procedures for managing and monitoring water.

Our current water management system is designed to capture and treat all water impacted by mining activity and divert clean water where practicable. While some water is reused as process water, there is always a nett gain of water on site.

KEY EFFECTS

The amount of mine-influenced water requiring treatment will increase for a period if Project Quattro is approved. The volume of water that can be discharged from our water treatment plant on any given day is currently limited to an allowable discharge; and is related to the flow in the river. Based on our analysis, the quantity and quality of additional water associated with the proposed Project Quattro could be treated and discharged within the constraints of our existing resource consents and current water treatment plant capacity. However, our treated water discharge consents will expire before the planned end of mining. Therefore, OceanaGold Waihi will be applying for new, treated water discharge consents, with the same conditions, as part of Project Quattro. No increased intake from the Ohinemuri River for process use would be required for Project Quattro.

OceanaGold Waihi is currently investigating options to meet further processing demand by treating recycled mine-water to a suitable quality.

The Martha pit is already dewatered as part of the current underground operations. No additional dewatering will be required in order to facilitate Martha Open Pit Phase 5. The Gladstone pit will not be effectively dewatered by the existing underground mines. Some dewatering would be required to lower groundwater and manage pit wall runoff from rainfall events. This water would be treated using the existing water treatment plant. Small settling ponds, silt fences, and diversion drains would also be built around the pit in order to contain the discharge of sediment to watercourses.

If Project Quattro is approved, the time required to fill the Martha pit lake, using a supplementary Ohinemuri River water take at the existing consented rate, increases

from about 9.5 years to an estimated 11.5 years.

During the initial foundation works for TSF3, silt control would need to be implemented to avoid dirty water discharging to waterways. There would also be an option to pump this water to the existing water treatment plant. TSF3 construction would also involve building an uphill diversion drain and perimeter drains to capture stormwater runoff. For operations, a fully lined silt collection pond would be constructed in the lowest area of the TSF3 site. All runoff collected in the pond would be pumped to the water treatment plant.

MONITORING

Baseline studies of the water quality and aquatic biology of the Ohinemuri River and its tributaries commenced in 1981. Monitoring of waterways, particularly the Ohinemuri River and its tributaries is an important part of our operation.

The water monitoring carried out on



the site is extensive, and it includes:

- Runoff from pit walls.
- Mine dewatering.
- Collection pond water.
- Silt pond water.
- Individual drains around the waste rock embankments.
- Water treatment plant discharge monitoring.
- River water and aquatic biology.

This data is integral to the daily management of our site. It can affect, for example, decisions made about water types to be treated through the water treatment plant. While much of the monitoring is required by our consent conditions, regular monitoring is recognised as being good practice. It allows the formation of a database so that trends can be monitored, and any unusual results can be investigated.

A similar extensive programme of water quality monitoring will be proposed to operate throughout the term of Project Quattro and beyond. If approved, this monitoring programme will be incorporated into a number of management and monitoring plans that would need to be approved by Waikato Regional Council.

MANAGEMENT MEASURES

The basic rules applied to site water management that has been effective in nearly 30 years of operation to date include:

- Natural water is diverted away from areas disturbed by mining activities wherever practicable in order to reduce the volumes of water affected by the mining activities.
- All water from areas disturbed by

mining activities is directed to appropriate collection and treatment facilities prior to discharge off-site.

- Where practicable, OceanaGold Waihi endeavours to reduce the volumes of water requiring treatment. An extensive programme of water quality monitoring exists to identify what water sources require treatment.
- Disturbed areas are progressively rehabilitated at the earliest practicable time to minimise silt losses and improve runoff water quality.
- Approval is sought from Waikato Regional Council to direct discharge water once the monitoring confirms that this is appropriate.

If Project Quattro is approved, management and monitoring plans will be prepared that cover all relevant water management consent requirements and other water-related matters pertaining to our operation.

The purpose of these plans will be to set out:

- Water management objectives.
- Descriptions of the water management system that will be applied across the site to meet the water management objectives.
- Priorities.
- Planned improvements where appropriate.
- Monitoring and reporting requirements.
- Contingency plans.

These documents would need to be approved by Waikato Regional Council and regularly reviewed.

CONCLUSION

Our studies indicate that the impacts on water attributed to Project Quattro can be managed effectively. Water quality predictions for the Project indicate compliance with existing treated water discharge consents, however, because these are due to expire before the planned end of mining OceanaGold Waihi will apply for new, treated water discharge consents, with the same conditions. New resource consents will be required for new clean water diversions, stormwater discharges and the dewatering of Gladstone pit. The expansion of the Martha pit would increase the time required to fill the pit lake from about 9.5 years to an estimated 11.5 years.

If Project Quattro is approved, management and monitoring plans will be prepared that cover all relevant water management consent requirements and other water-related matters pertaining to our operation.

We welcome your input into developing Project Quattro.

If you have an idea, concern, question or opinion, we want to hear from you. You can contact us through our website;

www.waihigold.co.nz

or visit us at our Project Information Office;

86 Seddon Street, Waihi.

Or use our Community Engagement Line;

0800 924 444